

AMENDMENTS TO THE CLAIMS

1-20. (Cancelled)

21. (New) A microchamber for cell cultures, the microchamber comprising:

a substrate which does not absorb light of a specific wavelength;

an absorption layer which absorbs light of the specific wavelength, said absorption layer being disposed over said substrate; and

a region made of a solid substance which does not absorb light of the specific wavelength and has a melting point lower than the boiling point of water, said region being disposed over said substrate,

wherein said absorption layer is disposed in said solid substance.

22. (New) The microchamber of claim 21, wherein said absorption layer is composed of fine particles which absorb light of the specific wavelength, said fine particles being disposed in said solid substance.

23. (New) The microchamber of claim 21, wherein said absorption layer is composed of a thin film disposed over said substrate.

24. (New) The microchamber of claim 23, wherein said thin film has a thickness permitting a transmittance of visible light of 50% or greater.

25. (New) The microchamber of claim 21, wherein said absorption layer is a thin film pattern disposed over said substrate with a line width narrower than the specific wavelength.

26. (New) The microchamber of claim 21, wherein said solid substance has a melting point not greater than 45°C.

27. (New) The microchamber of claim 21, wherein said solid substance is agarose.

28. (New) The microchamber of claim 21, wherein the specific wavelength is a wavelength not absorbed by water.

29. (New) A cell culture apparatus equipped with the microchamber for cell cultures as claimed in claim 21, the apparatus comprising:

a unit for irradiating light of the specific wavelength to form a space by heating and melting said region made of said solid substance.

30. (New) The cell culture apparatus according to Claim 29, wherein said unit for irradiating light irradiates a focused beam.

31. (New) The microchamber of claims 21, wherein said absorption layer is disposed in said solid substance such that a portion of said solid substance separates said absorption layer from said substrate so as to allow for a selected portion of said region to be melted.

32. (New) A microchamber for cell cultures, the microchamber comprising:

- a substrate which does not absorb light of a specific wavelength;
- an absorption layer which absorbs light of the specific wavelength, said absorption layer being disposed over said substrate;
- a first region made of a first solid substance which does not absorb light of the specific wavelength and has a melting point lower than the boiling point of water, said first region being disposed over said substrate; and
- a second region made of a second solid substance which does not absorb light of the specific wavelength and has a melting point lower than the boiling point of water, said second region being disclosed over said substrate,

wherein the melting point of said first region is different than the melting point of said second region.

33. (New) The microchamber of claim 32, wherein said absorption layer is composed of a thin film laid over a surface of said substrate, and

wherein said first region is formed over said absorption layer.

34. (New) The microchamber of claim 33, wherein said thin film has a thickness permitting a transmittance of visible light of 50% or greater.

35. (New) The microchamber of claim 32, wherein said absorption layer is a thin film pattern

laid over a surface of said substrate with a line width narrower than the specific wavelength.

36. (New) The microchamber of claim 32, wherein at least one of said first solid substance and said second solid substance has a melting point not greater than 45°C.

37. (New) The microchamber of claim 32, wherein at least one of said first solid substance and said second solid substance is agarose.

38. (New) The microchamber of claim 32, wherein the specific wavelength is a wavelength not absorbed by water.

39. (New) A cell culture apparatus equipped with the microchamber for cell cultures as claimed in Claim 32, the apparatus comprising:

a unit for irradiating light of the specific wavelength to form a space by heating and melting at least one of said first region made of said first solid substance and said second region made of said second solid substance.

40. (New) The cell culture apparatus according to Claim 39, wherein said unit for irradiating light irradiates a focused beam.

41. (New) The microchamber of claim 32, wherein the melting point of said first region is lower than the melting point of said second region such that said first region can be selectively

melted without melting said second region.

42. (New) The microchamber of claim 32, wherein said first region is distinct from said second region and is disposed over said second region.